



Missouri Department of dnr.mo.gov
NATURAL RESOURCES
Michael L. Parson, Governor Dru Buntin, Director

September 29, 2021

Clint Sperry
Remedial Project Manager
Superfund and Emergency Management Division
U. S. Environmental Protection Agency
Region VII
11201 Renner Blvd.
Lenexa, KS 66219

Re: Conceptual Site Model (CSM): Findett OU4 (Ameren), Huster Road Substation, 3800 Huster Road, St. Charles, Missouri (September 01, 2021)

Dear Clint Sperry:

The Missouri Department of Natural Resources' Superfund Section reviewed the above referenced document. The document addresses remedy design optimization and the concerns of the residents of St Charles City (City) regarding the potential for chlorinated volatile organic compounds (CVOCs) to show up in the municipal groundwater extraction well CW-10. The concerns prompted the City to request the installation of a monitoring well between the Site and CW-10. The Responsiveness Summary indicated that the CSM should prove the need for an additional monitoring well.

Please find comments below:

1. The CSM addresses the remedy design optimization by evaluating the containment of the CVOC plume by the current groundwater extraction and treatment system (GETS) under five hydrological modeling scenarios and the source zone depletion and plume attenuation.
2. The CSM also addresses the City's concerns under the Groundwater Numerical Model section of the document mentioned above. In scenario three (Figure 11) and five (Figure 13) of the hydrological model there is higher extraction rate of groundwater from CW-10. Both scenarios show that it would take the Site-related CVOCs between 400 - 600 days to reach CW-10 and the dilution will reduce concentration below detection limits in the produced water. Therefore, under the current plume containment only conditions, the risk for VOCs to show up in CW-10 is minimal.
3. However, if either scenario three or five occurs, the Department recommends installing a monitoring well. In addition, the City should not extract groundwater at maximum

capacity from CW-10 beyond **365 continuous days** within any single 5 year period without installing an additional monitoring well between the site and CW-10.

4. The source zone depletion and plume attenuation time series (Figure 15) show the potential for degradation of CVOCs over a 5000 day projection (13.7 years). Although the plot of source zone depletion (Figure 15) in MW-08 reflects the effect of the bio-augmentation initiated in 2014 with the majority of the individual components expected to decline to almost zero by 2500 to 3000 days, there is a need to document this bio-augmentation-induced progressive decline. Can the potential responsible party (PRP) track the depletion of the plume in other monitoring wells as bio-augmentation progresses in the remedial action stage and report them as part of the Five-Year Reviews?
5. The CSM document concludes that the PRP will deactivate GETS and place it on standby at some point in the remedial action process, but does not give further details on when this will happen. Will bio-augmentation fully replace GETS? If yes, then the PRP needs to state or propose the conditions for GETS deactivation, the stages of GETS deactivation process and bio-augmentation activation, and the conditions that could warrant the reactivation of GETS. If no, then what are the conditions that require only one remedy and/or both remedies?

Thank you for the opportunity to review and comment on the Conceptual Site Model for Findett OU4 (Ameren), Huster Road Substation, 3800 Huster Road, St. Charles, Missouri. If you have any questions, do not hesitate to contact me at the Missouri Department of Natural Resources, Environmental Remediation Program, P.O. Box 176, Jefferson City, Missouri 65102-0176, or by telephone at 573-526-6659, or by e-mail at Feyi.Ilesanmi@dnr.mo.gov.

Sincerely,

ENVIRONMENTAL REMEDIATION PROGRAM



Feyi Ilesanmi, Project Manager
Superfund Section
Missouri Department of Natural Resources

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